Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method for use in an electrically driven vehicle having a primary drivetrain and an auxiliary drivetrain, the method comprising:

controlling a driving characteristic of the auxiliary drive train based on a first performance limiting strategy, the first performance limiting strategy based in part on future availability of the primary drivetrain; and

switching control of the driving characteristic to a second performance limiting strategy, the second performance limiting strategy based in part on future unavailability of the primary drivetrain;

wherein the second performance limiting strategy comprises setting a plurality of maximum vehicle speed ranges based on battery state of charge for a battery used to power an electric motor of the auxiliary drivetrain; and

wherein setting the maximum vehicle speed ranges comprises setting the maximum vehicle speed to one of 45 mph if the battery state of charge is above 50%, 35 mph if the battery state of charge is between 50% and 45%, 25 mph if the battery state of charge is between 45% and 35%, and 15 mph if the battery state of charge is between 35% and 20%.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Currently Amended) ~~The method of claim 21~~ A method for use in an electrically driven vehicle having a primary drivetrain and an auxiliary drivetrain, the method comprising:

controlling a driving characteristic of the auxiliary drive train based on a first performance limiting strategy, the first performance limiting strategy based in part on future availability of the primary drivetrain;

switching control of the driving characteristic to a second performance limiting strategy, the second performance limiting strategy based in part on future unavailability of the primary drivetrain and controlling power output of an electric motor of the auxiliary drivetrain;

wherein the second performance limiting strategy comprises setting a plurality of maximum vehicle speed and a maximum power ranges for the electric motor based on battery state of charge for a battery of the auxiliary drivetrain; and

wherein setting the maximum speed and the maximum power ranges comprises setting the maximum speed and the maximum power to one of 45 mph and 25 kW if the battery state of charge is above 50%, 35 mph and 15 kW if the battery state of charge is between 50% and 45%, 25 mph and 10 kW if the battery state of charge is between 45% and 35%, and 15 mph and 5kW if the battery state of charge is between 35% and 20%.

8. (Canceled)

9. (Currently Amended) ~~The method of claim 21~~ A method for use in an electrically driven vehicle having a primary drivetrain and an auxiliary drivetrain, the method comprising:

controlling a driving characteristic of the auxiliary drive train based on a first performance limiting strategy, the first performance limiting strategy based in part on future availability of the primary drivetrain;

switching control of the driving characteristic to a second performance limiting strategy, the second performance limiting strategy based in part on future unavailability of the primary drivetrain and controlling power output of an electric motor of the auxiliary drivetrain;

wherein the second performance limiting strategy comprises limiting actual

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power provided by the electric motor to drive the vehicle; and

wherein the actual power is limited according to the following algorithm

$$AP = 2 * MP * \left(\frac{MS-VS}{MS} \right) - MP * \left(\frac{MS-VS}{MS} \right)^2$$

wherein:

AP = actual power (kW);

MP = maximum power (kW);

MS = maximum vehicle speed (mph); and

VS = actual vehicle speed (mph).

10. (Canceled)

11. (Original) The method of claim 10 further comprising setting maximum power and maximum speed ranges based on the battery state of charge.

12. (Original) The method of claim 11 wherein setting the maximum speed and the maximum power ranges comprises setting the maximum speed and the maximum power to one of 45 mph and 25 kW if the battery state of charge is above 50%, 35 mph and 15 kW if the battery state of charge is between 50% and 45%, 25 mph and 10 kW if the battery state of charge is between 45% and 35%, and 15 mph and 5kW if the battery state of charge is between 35% and 20%.

13. (Currently Amended) A hybrid electric vehicle system having a primary drivetrain and an auxiliary drivetrain, the auxiliary drivetrain including a battery and an electric motor, the system comprising:

a vehicle system controller for controlling consumption of available battery energy by the electric motor, the energy consumption controlled according to first and second performance limiting strategies, the first performance limiting strategy based in part on future

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availability of the primary drivetrain, the second performance strategy based in part on future unavailability of the primary drivetrain and controlling power output of the electric motor of the auxiliary drivetrain;

wherein the second performance limiting strategy limits performance of the electric motor to consume less energy than the electric motor would consume for the first performance limiting strategy;

wherein the second performance limiting strategy comprises limiting actual power provided by the electric motor to drive the vehicle;

wherein the actual power is limited based on a relationship between a maximum power limit and a maximum speed limit for the electric motor; and

wherein the vehicle system controller sets maximum speed and maximum power ranges to one of 45 mph and 25 kW if the battery state of charge is above 50%, 35 mph and 15 kW if the battery state of charge is between 50% and 45%, 25 mph and 10 kW if the battery state of charge is between 45% and 35%, and 15 mph and 5kW if the battery state of charge is between 35% and 20%.

14.   (Canceled)

15.   (Canceled)

16.   (Canceled)

17.   (Canceled)

18.   (Currently Amended)   A hybrid electric vehicle system, the system comprising:

an internal combustion engine;

a planetary gear set connected to the internal combustion engine;

a number of meshing gears connected to the planetary gear set to receive torque from the planetary gear set;

a pair of wheels connected to the meshing gears to drive the vehicle;

a generator connected to the planetary gear set;

a battery connected to the generator for storing energy produced by the generator;

an electric motor connected to the battery to consume energy from the battery and to provide torque to the meshing gears; [[and]]

a vehicle system controller for controlling consumption of available battery energy by the electric motor during a condition which prevents the engine from providing torque to the wheels and power to the battery by controling power output of the electric motor based on the available battery energy;

wherein the vehicle system controller determines the available battery energy by calculating a battery state of charge and limits actual power provided by the electric motor to drive the vehicle; and

wherein the actual power is limited according to the algorithm

$$AP = 2 * MP * \left(\frac{MS-VS}{MS}\right) - MP * \left(\frac{MS-VS}{MS}\right)^2$$

wherein:

AP = actual power (kW);

MP = maximum power (kW);

MS = maximum vehicle speed (mph); and

VS = actual vehicle speed (mph).

19. (Canceled)

20. (Canceled)

21. (Currently Amended) A method for use in an electrically driven vehicle

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having a primary drivetrain and an auxiliary drivetrain, the method comprising:

controlling a driving characteristic of the auxiliary drive train based on a first performance limiting strategy, the first performance limiting strategy based in part on future availability of the primary drivetrain; [[and]]

switching control of the driving characteristic to a second performance limiting strategy, the second performance limiting strategy based in part on future unavailability of the primary drivetrain and controlling power output of an electric motor of the auxiliary drivetrain;

wherein the second performance limiting strategy comprises setting a plurality of maximum power ranges for the electric motor based on battery state of charge for a battery of the auxiliary drivetrain; and

wherein setting the maximum power ranges comprises setting the maximum power to one of 25 kW if the battery state of charge is above 50%, 15 kW if the battery state of charge is between 50% and 45%, 10 kW if the battery state of charge is between 45% and 25%, and 5kW if the battery state of charge is between 35% and 20%.

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